Attachment 1, NNL08259CRNQ
Statement of Work for Industrial Hydraulic Crane
September 8, 2008

One (1) new 18-ton minimum Industrial Hydraulic Crane. The Crane shall be delivered FOB Destination to Langley Research Center, Hampton, Virginia, and off loaded within 30 calendar days after contract award. The Crane will be used to perform critical lifts on unique aerospace hardware including prototype models, flight test articles, developmental instrumentation, and wind tunnel test equipment.

The Industrial Hydraulic Crane shall be furnished in accordance with the following specifications and requirements:

Capacity: 18 ton (minimum)

Carrydeck capacity: 20,000 lbs minimum

Boom: Full power boom with integral holding valve on telescope cylinder.

Boom length: Minimum length 20' (maximum)
Maximum length 54' (minimum)
Maximum tip height 60' (minimum)

Boom extension: Minimum length 15'

Boom elevation: 0 (maximum) to 80 (minimum) degrees

Swing: 360 degrees continuous rotation

The crane shall include an anti two-blocking device that automatically provides audible warning to the crane operator and disengages all crane functions whose movement can cause two-blocking.

The crane shall include a Load Moment Indicator. The indicator shall include a digital display of boom angle, boom length, boom radius, capacity. The indicator shall include the capability to allow the operator to input the maximum and minimum limits for boom angle, boom length, boom radius, and capacity. The crane shall also include displays with color coded light bar and audible alarms with function cutout if loads exceed entered parameters.

The crane shall utilize a hydraulic system with a reservoir sight level gauge and steel side plating to guard against side impact damage.

The crane shall include appropriately sized outriggers that are hydraulic telescoping with vertical jacks at the four corners with integral check valves, and independent control of outriggers

The crane shall have an Operator Control Station meeting the following minimum requirements: Frame mounted, enclosed control station with safety glass and hinged door, front windshield wiper, heater and defroster. The station shall also include weather resistant seat with seat belt, hour-meter, sight level bubble, and fire extinguisher. The dash panel shall include engine oil pressure gauge, engine water temperature gauge, fuel gauge, transmission low oil and high temperature warning lights, low battery warning light, and brake system low pressure warning light.

The crane shall be 4x4 front and rear axle drive with planetary hubs and limited slip differential. The engine shall use diesel fuel.

The crane shall be capable of Front 2-wheel, 4-wheel, and crab steering with electronic self alignment options with a selection switch located on the dash panel.

Shall include head, tail, rear work, and stop lights, and turn signals.

Crane shall be capable of traveling 15 mph minimum with no load.

Shall include dual rearview mirrors, lifting and tie down lugs on the non-skid carrydeck, backup alarm, and outrigger motion alarm.

Shall be designed and manufactured in compliance with OSHA 29 CFR 1926.550, NASA STD-8719.9 Standard for Lifting Devices and Equipment as a critical lift crane (Chapter 5, Mobile Cranes and Derricks), ASME B30.5, and PCSA (Power Crane and Shovel Association).

Shall be tested in compliance with OSHA, ASME B30.5, PCSA, and NASA STD-8719.9.

Acceptance: NASA will accept the crane within 30 days after delivery. NASA intends to conduct a safety hazard analysis prior to acceptance to ensure all specifications have been met.